International Conference on the Bioscience of Lipids

Editor

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2011 NEWSLETTER

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51st International Conference on the Bioscience of Lipids (ICBL)
Bilbao, Spain, September 7-11, 2010
"Lipids, Tapas and the Guggenheim Museum"

The 51st International Conference on the Bioscience of Lipids (ICBL) was held from September 7-11, 2010, in Bilbao, Spain. It was a joint meeting with the 7th International Conference on Lipid Binding Proteins, another conference series strongly related to problems of lipid and membrane biology.

The organizers of the ICBL 2010, Felix Goñi, Antonio Gómez Muñoz and their colleagues from the Department of Biochemistry and Molecular Biology, Faculty of Science and Technology, University of the Basque Country, had set up a most interesting scientific program which was nicely complemented by the contributions of the International Conference on Lipid Binding Proteins (organized by Jan F. C. Glatz from the Department of Molecular Genetics, Cardiovascular Research Institute, Maastricht University, The Netherlands. The main topics of the conference were (i) Physical chemistry of lipids; (ii) Lipids and biomembranes; (iii) Bioactive lipids and lipidomics; (vi) Lipid-protein interactions and lipid trafficking; (v) Lipid-binding proteins; (vi) Lipids in health and disease; and (vii) Plant lipids. These topics gave an excellent overview of recent developments in lipid research which were actively discussed in the lecture hall, as well as during poster sessions and coffee breaks.

The 51st ICBL was held at the Alhóndiga Cultural and Leisure Center in the City Center of Bilbao. This Center resulted from the renovation of a former wine cellar by the French designer Philippe Starck. The Alhóndiga Center comprises three main buildings within the existing structure originally constructed in 1909. A six thousand square-meter indoor plaza on the ground floor is punctuated by 43 pillars that support the three new buildings. The plaza is meant as a completely open space for visitors to create novel artistic-cultural ideas. This venue provided a stimulating atmosphere for the 250 participants of the ICBL and was a focus of lipid research for the five days of the meeting.

In the opening ceremony, the Chairman of ICBL 2010, Felix Goñi, and the President of the ICBL, Guenther Daum, welcomed the delegates and underlined the high aims of the ICBL. Traditionally, this conference covers fundamental lipid research and related applications. A specific aim of the ICBL is supporting young researchers to present their own work and to get in touch with established scientists. In her welcome address, the Director-General for Science of the Basque Government, M.B. Ochoa, appreciated the efforts of the organizers of ICBL to bring this conference to Bilbao and to gather so many lipid experts in the Basque country. The highlight of the Opening Session was the Laurens Van Deenen Lecture named after one of the pioneers of lipid research. This Lecture was given by W. Dowhan from the Department of Biochemistry and Molecular Biology, University of Texas, Houston, USA, addressing the fundamental contributions of his laboratory to our current understanding of lipid-protein interactions in biological membranes. The Opening Session ended in a relaxed atmosphere with a music performance by the Gintonic ensemble.

Another important meeting point for participants of the ICBL 2010 was the Ercilla Hotel. The hotel was named after Alonso de Ercilla y Zúñiga (1533-1594) who was a Spanish nobleman, soldier and epic poet from the Basque Country. During the conference, ICBL participants had lunch and dinner in the Ercilla Hotel. At these occasions we learned that meals and eating are very important in the Basque Country. We also learned that relaxing after meals is part of the Spanish life style and an excellent opportunity to meet colleagues and friends. With a glass of Spanish wine it is fun to talk about science and discuss possible collaborations, or to make new friends and chat with colleagues whom one has not met before.

The Ercilla Hotel was also the venue for the ICBL Conference Dinner on September 10, 2010. During this dinner the delegates enjoyed gorgeous Basque dishes, local wine and champagne following the tradition of previous ICBLs. It has also become a tradition that during the Conference Dinner the winners of the ICBL Poster Award and ICBL Young Speaker Award are presented. Peter Slotte, Vice President of the ICBL, and Bill Dowhan, BBA Executive Editor, introduced the winners of this year to the audience and congratulated them for their excellent performance. It was a pleasure to see the four award winners from four different countries, whose work will be described below in the Newsletters, celebrating with their colleagues. When champagne was served, the current President of the ICBL, Guenther Daum, first thanked the organizers again for their efforts and hospitality. Then, comparing the famous Guggenheim Museum of Bilbao to ICBL he speculated about parallels between science and the arts. In both disciplines, there are ups and downs, failures and success, challenges and unexpected findings. Thus, Bilbao was obviously an excellent place to extend the visitors' knowledge in both fields. The ICBL President's speech ended with the traditional toast to the "Spirit of ICBL", which includes not only lipid research at a high level but also joyful and long lasting friendships.

Although the program of the 51st ICBL was densely packed, participants had a chance to see at least a little bit of the beautiful city of Bilbao. Bilbao (Basque: Bilbo) is the capital of the province of Biscay and the tenth largest city in Spain. Since its foundation in the early 14th century, it was a commercial area that enjoyed significant importance. Throughout the 19th and beginning of the 20th century, Bilbao became a center of industrialization. Nowadays, Bilbao is a lively city that is in a social, economic and aesthetic revitalization process. An absolute must to see in Bilbao is of course the famous Guggenheim Museum. The eye-catching building clad in glass, titanium and limestone was

designed by the Canadian-American architect Frank Gehry. The Guggenheim Museum Bilbao, one of several museums belonging to the Solomon R. Guggenheim Foundation, harbors modern and contemporary art. Another typical experience in Bilbao is a visit to one (or more) of the many Tapas Bars. In these vivid places people meet, chat and enjoy the delicious tapas - small sandwiches with various ingredients and also sometimes little pieces of art.

When an ICBL ends, participants are usually a bit exhausted but inspired by new scientific ideas and satisfied by novel impressions in the host country. This was certainly also true for the ICBL 2010 in Bilbao. The end of an ICBL, however, is the starting point for the conference in the next year. ICBL 2011 will take place from August 30 to September 2, 2011, in Warsaw, Poland. Ewa Swiezewska, Agnieszka Dobrzyn and their team will be the organizers. In the Closing Sessions of the 51st ICBL Ewa Swiezewska reported briefly about the attractive scientific program and also showed some touristic highlights of Warsaw.

We are looking forward to the 52nd International Conference of the Bioscience of Lipids in Warsaw!

Guenther Daum
President of the ICBL

51st International Conference on the Bioscience of Lipids (ICBL)
Bilbao, Spain, September 7-11, 2010
Scientific Report

The 51st ICBL meeting was held at the Alhondiga Conference Center, in Bilbao (Spain). A total number of 240 scientists from 30 countries attended the meeting. There were 26 invited lectures, 28 short oral communications and 136 poster presentations.

The theme of this year's ICBL was "Over 50 years of lipoexcitement". The program comprised the opening ceremony plus 7 half-day sessions each dealing with specific topics related to the main theme. The meeting was jointly organized with the 7th International Conference on Lipid Binding Proteins. The opening ceremony on Tuesday evening was followed by the **14th annual van Deenen lecture**, given by **W. Dowhan** (Houston, Texas), entitled "Lipid-protein interactions as determinants of Membrane Protein Structure". This masterly lecture was focused on the membrane proteins of *Escherichia coli*, as influenced by the membrane lipid composition. (The Abstracts of all the presentations can be found in *Chem. Phys. Lipids* 163S, 2010).

Session 1 was devoted to the physical chemistry of lipids and chaired by **J. P. Slotte** (Turku, Finland). **D. Marsh** (Göttingen, Germany) discussed our current knowledge on Biophysics of Lipidomics. **H. Heerklotz** (Toronto, Canada) had a provocative presentation on complex lipid-surfactant mixtures: a waste of good physical chemistry on a dirty system? **V. A. Frolov** (Bilbao, Spain) discussed and presented non-bilayer intermediates and pathways of membrane remodeling, while **M. Prieto** (Lisbon, Portugal) talked about rafts and ceramides: biophysical perspective of biologically-relevant membrane domains. This session was complemented with short presentations on relevant topics by **T. Maula** (Turku, Finland), **L. D'Auria** (Louvain-la-Neuve, Belgium), **A. Veloso** (Bilbao, Spain) and **U. Loizides-Mangold** (Lausanne, Switzerland).

The topic of **Session 2** was lipids and biomembranes. **B. Maggio** (Cordoba, Argentina) reviewed the topic of lateral domain segregation and phosphohydrolytic activity, and discussed the question: what do the enzymes really do? **Y. Igarashi** (Sapporo, Japan) presented his studies on SMS2 and CerK deficiency mice and their relation to diet-induced obesity and mast cell activation. Then **B. Larijani** (London, UK) presented her interesting results on regulation of nuclear envelope assembly: phosphoinositide signals in membrane dynamics. The first part of the session concluded with an excellent review on phospholipid metabolism and disease by **D. E. Vance** (Edmonton, Canada). **M. Lagarde** (Lyon, France) chaired the part of the session devoted to short oral presentations, for which the talks by **J. Bernardino de la Serna** (Odense, Denmark), **G. Daum** (Graz, Austria), **E.B. Babiychuk** (Bern, Switzerland) and **J. Vance** (Edmonton, Canada) had been selected.

Session 3, on bioactive lipids and lipidomics was chaired by **M. Wakelam** (Cambridge, UK). **J. Balsinde** (Valladolid, Spain) discussed the control of free arachidonic acid levels within immunoinflammatory cells by phospholipases A_2 and acyltransferases. **T. Levade** (Toulouse, France) presented his work on diverting sphingolipid metabolism as a strategy to fight cancer. Then **A. H. Merrill** (Atlanta, GA, USA) reviewed the timely topic of rafts and ceramides: regulation of sphingolipid biosynthesis de novo by novel mechanisms of substrate supply and membrane trafficking, and **M. Wakelam** (Cambridge, UK) shared with us his investigation of lipid signalling pathways by mass spectrometry. The short talks of this session were given by **D. N. Brindley** (Edmonton, Canada), **P. V. Escribá** (Balearic Islands, Spain), **T. Zor** (Tel-Aviv, Israel), **H. Tojo** (Osaka, Japan) and **L. Halasiddappa** (Graz, Austria). The chair of this part of the session was **D. N. Brindley** (Edmonton, Canada).

In **Session 4**, chaired by **J. Vance** (Edmonton, Canada), the lectures dealt with lipid-protein interactions and lipid trafficking. **T. Futerman** (Rehovot, Israel) showed his recent results on mammalian ceramide synthases. Later **J. C. Gómez-Fernández** (Murcia, Spain) discussed his research

under the title "Protein Kinases C are Versatile Decoders of Lipid Signals". **K. Simons** (Dresden, Germany) gave the final talk of the first part of the session, dealing with lipid–protein interactions governing raft partitioning in membranes. The same **K. Simons** (Dresden, Germany) acted as chairman for the second part of session 4 in which **G. Basañez** (Bilbao, Spain), **U. Stemmer** (Graz, Austria) and **J.F.C. Glatz** (Maastricht, The Netherlands) gave short oral presentations.

A special **Session 5** was organized by the 7th Lipid Binding Proteins Conference that was meeting jointly with ICBL. The chair was held by **J.F.C. Glatz** (Maastricht, The Netherlands). The first lecture was given by **N. Noy** (Cleveland, OH, USA), on retinoic acid receptors and binding proteins in regulation of gene expression, and the second one by **W. Prinz** (Bethesda, MD, USA), who discussed lipid-regulated sterol transfer between closely apposed membranes by oxysterol-binding protein homologues. Then **R. Ehehalt** (Heidelberg, Germany) presented his contribution, under the title: CD36, ACSLs and lipid rafts, determinants for cellular fatty acid uptake. In the second part, chaired by **B. Caputto** (Córdoba, Argentina), short talks were given by **J.M. Ruysschaert** (Brussels, Belgium), **B. Corsico** (La Plata, Argentina), **V.M. Olkkonen** (Helsinki, Finland) and **M. E. Guerin** (Bilbao, Spain).

In the afternoon, **Session 6** on lipids in health and disease was chaired by **J.M. Ruysschaert** (Brussels, Belgium). The first speaker was **J. C. Fernández-Checa** (Barcelona, Spain), and the title of this talk was "the janus faces of mitochondrial cholesterol in cell death". Later **U. P. Steinbrecher** (Vancouver, Canada) summarized his studies on activation of growth and survival pathways in macrophages by oxidized LDL. The third lecture in this session was a Special Lecture of the 7th Lipid Binding Conference on Intestinal absorption of long-chain fatty acids: evidence and uncertainties on the role of lipid binding proteins by **I. Niot** (Dijon, France). Related short oral presentations, under the chairmanship of **A. H. Merrill** (Atlanta, GA, USA), were given by **E. Lombardo** (Groningen, The Netherlands), **M. Rabionet** (Heidelberg, Germany), **T. Hornemann** (Zürich, Switzerland) and **A. Apraiz** (Bilbao, Spain).

The final **Session 7** covered microbial and plant lipids and was chaired by **B.J. Nikolau** (Ames, IA, USA). **C. Benning** (Michigan, USA) spoke on membrane lipid metabolism and trafficking during chloroplast development and maintenance, and **I. Feussner** (Göttingen, Germany) proposed that prokaryotic FAD-containing oxidoreductases are novel players in fatty acid metabolism. Then **B. J. Nikolau** (Ames, IA, USA) discussed an integrated strategy for generating lipid-based biorenewable chemicals: diversifying fatty acid synthesis with polyketide synthesis biocatalysts. Also within the same session, **J.D. Faure** (Versailles, France), **N. Ruiz-López** (Herts, UK) and **K. Katayama** (Tokyo, Japan) gave short oral communications, chaired by **D. de Mendoza** (Rosario, Argentina). Session 7 was completed by the Closing Lecture, by **D. de Mendoza** (Rosario, Argentina). The title was: "thermal regulation of unsaturated fatty acid biosynthesis in bacteria". The chair was **G. Daum** (Graz, Austria).

During the meeting the awards for the best posters and for best short oral communications were announced. The awardees for the best posters were **K. Rajamäki**, from the Wituri Research Institute, Helsinki, Finland and **M. Serricchio**, from the Institute of Biochemistry and Molecular Medicine, University of Bern, Bern, Switzerland. The awardees for the best oral presentations were **M. Rabionet**, from Cellular and Molecular Pathology, German Cancer Research Centre, Heidelberg, Germany and **U. Stemmer**, form the Institute of Biochemistry, Graz University of Technology, Graz, Austria.

The abstracts of the invited lectures, short oral communications and poster presentations have been published in *Chem Phys Lipids* 163 (Supplement), August 2010.

Felix Goñi
On behalf of the Organizing Committee ICBL 2010

The Poster Awards of the 51st ICBL
"The new ICBL Generation"

The Conference dinner of the 51st ICBL in Bilbao took place in the banquet room of Hotel Ercilla, and included the traditional ICBL Poster Award ceremony. The Poster Awards for young scientists is a strong and valued tradition within ICBL, since it is directly shows the appreciation of the scientific contributions by the young scientists. For some of the participants it was the first time to present their most recent data to experts in the field of lipid research and to discuss their studies among each other in an international meeting. ICBL very much hopes to attract young scientists to become regular participants of this conference in the future and to continue their investigations in the lipid field.

Members of the ICBL 2010 Poster Award Jury were: J Peter Slotte (chairman), Åbo Akademi University, Turku Finland; Jean Vance, University of Alberta, Canada; Yasuyuki Igarashi, Hokkaido University, Sapporo, Japan; Laszlo Vigh, Hungarian Academy of Sciences, Szeged, Hungary; Maurizio Crestani, University of Milano, Italy; Patricia Gangoiti and José L Nieva from the University of the Basque county, and Jose Fernández-Checa, Hospital Clinic, Barcelona. Among the 136 posters which were presented at the ICBL 2010 in Bilbao, in a first round of pre-selection by the Poster Award Jury 22 poster contributions were nominated based on their high quality and scientific interest. These pre-selected posters were more closely inspected by the members of the Poster Award Jury at the conference location. Criteria at this point were of course relevance of the topic, originality of the subject, the quality of the presentation, the visual appearance, and interactions with the presenter. In this year's Award presentation, two equal Poster Awards were granted. The abstracts of the two winning posters are shown below. The ICBL community is proud of the high quality of the posters presented at the Bilbao meeting, and congratulates the two winners and hopes that in future meetings young attendants will be as active as at the 2010 ICBL in Bilbao.

J. Peter Slotte
Vice President of ICBL

The winners of the 2010 ICBL Poster Awards were:

PO 17

An unconventional biosynthetic route for Cardiolipin in *Trypanosoma brucei*

M. Serricchio[1], M. Heller[2] and P. Bütikofer[1]

[1] *Institute of Biochemistry & Molecular Medicine, University of Bern, 3012 Bern, Switzerland*

[2] *Department of Clinical Research, University of Bern, 3010 Bern, Switzerland*

The protozoan parasite, *Trypanosoma brucei*, is the causative agent of human African sleeping sickness and a related animal disease, nagana. During their life cycle, trypanosomes alternate between two vastly different host environments, the mammalian bloodstream and several compartments of the insect (tsetse) vector. Since *T. brucei* parasites contain a single mitochondrion, which fulfils completely different functions during the two major life cycle stages, they represent an interesting model organism to study mitochondrial biogenesis and metabolic functions of mitochondria.

Our laboratory has previously shown that down-regulation of phosphatidylethanolamine synthesis in *T. brucei* causes abnormal cristae morphology and fragmented mitochondria. We now extend these studies by examining the role of the mitochondria-specific glycerophospholipid, cardiolipin (CL), in mitochondrial homeostasis. In *T. brucei*, CL synthesis is proposed to occur via the consecutive action of a newly identified phosphatidylglycerophosphate (PGP) synthase, a yet unknown PGP phosphatase, and a newly identified prokaryotic-type CL synthase. Gene knock-down of PGP synthase by RNAi had a strong effect on cell growth in procyclic form *T. brucei* and caused a decrease in PG levels, but didn't affect CL levels. In contrast, RNAi against CL synthase had only little effect on cell growth. CL levels decreased after 6 days of RNAi induction, concomitant with an increase in PG levels. To our knowledge, this is the first time that a prokaryotic-type CL synthase is identified in a eukaryotic organism. The cellular localization of PGP synthase and CL synthase in *T. brucei* is studied by expressing tagged constructs.

PO 43

Cholesterol crystals activate the NLRP3 inflammasome in human monocytes and macrophages

Rajamäki K[1], Lappalainen J[1], Öörni K[1], Välimäki E[2], Matikainen S[2], Kovanen PT[1], Eklund KK[1]

[1]*Wihuri Research Institute, Kalliolinnantie 4, Helsinki, Finland*

[2]*Finnish Institute of Occupational Health, Topeliuksenkatu 41, Helsinki, Finland*

Background: The inflammasome pathway, functional in monocytes and macrophages, involves the conserved family of NOD-like receptors (NLRs). Upon activation, NLRs oligomerize and form caspase-1-activating cytoplasmic protein complexes termed inflammasomes. Subsequently, caspase-1 cleaves pro-interleukin(IL)-1β into its biologically active secreted form. The inflammasome activators identified so far include many particulate and crystalline substances, which activate the NLRs indirectly, via induction of cellular stress signals.

Objectives: Since cholesterol crystals and macrophages are abundant in atherosclerotic lesions, and IL-1β has been linked to atherogenesis, we wanted to study whether cholesterol crystals could induce inflammasome activation.

Methods: Endotoxin-free cholesterol crystals were introduced to culture medium of human monocytes and macrophages. Cytokine secretion and changes in inflammasome-related gene expression were analyzed using ELISA and quantitative real-time RT-PCR, respectively. Cholesterol crystal phagocytosis was demonstrated using confocal reflection microscopy, and lysosomal integrity was monitored using the fluorescent acridine orange stain.

Results: THP-1 macrophages and LPS-primed primary human monocytes and macrophages responded to cholesterol crystals by dose-dependent IL-1β secretion. The IL-1β secretion required caspase-1 and cathepsin B activity, phagocytosis of the crystals, and potassium efflux from cells. Cholesterol crystals caused destabilization of lysosomal membranes and leakage of cathepsin B to cytoplasm, which suggested involvement of the NOD-like receptor 3 (NLRP3) inflammasome.

Silencing of the NLRP3 receptor completely abolished cholesterol crystal-induced IL-1β secretion, confirming NLRP3 as the cholesterol crystal-responsive inflammasome in macrophages.
Conclusions: Cholesterol crystal-induced inflammasome activation in macrophages may represent an important link between lipid accumulation and inflammation in atherosclerotic lesions.

The Young Investigator Awards of the 51st ICBL

BBA Molecular and Cell Biology of Lipids continued its support of oral presentations by young investigators at ICBL meetings. The awardees pictured with William Dowhan, Executive Editor of BBA Lipids are Ute Stemmer (center) from the Graz University of Technology, Graz, Austria and Mariona Raboinet (right) from the German Cancer Research Center, Heidelberg, Germany. Each awardee received 500 Euros for their oral presentations. Photo courtesy of Dennis Vance, Editor-in-Chief BBA.

William Dowhan
Former ICBL Corresponding Member

The winners of the 2010 ICBL Young Investigator Awards were:

SO15
Oxidized phospholipids: uptake and targeting in RAW 264.7 macrophages
U. Stemmer[1], E. Zenzmaier[1], B. Stojcic[1], G. Rechberger[2], M. Kollroser[3], A. Hermetter[1]
[1] *Department of Biochemistry, Graz University of Technology, Austria*
[2] *Institute of Molecular Biosciences, University of Graz, Austria*
[3] *Institute of Forensic Medicine, Medical University of Graz, Austria*
Oxidized phospholipids (oxPL) are key players in the development of several chronic diseases, including atherosclerosis. Evidence is growing that these highly bioactive lipids, as components of modified LDL, are responsible for multiple pathophysiological effects of this particle on vascular cells. Here we report on the cellular uptake of the fluorescently labeled oxPLs 1-palmitoyl- 2-(5-oxovaleroyl)-sn-glycero-3-phosphocholine (POVPC) and 1- palmitoyl-2-glutaroyl-sn-glycero-3-phospho-choline (PGPC) from physiologically relevant carriers (complexes with albumin and LDL) and

the identification of their primary molecular targets in cultured macrophages. Fluorescent PGPC was rapidly internalized by the cells, whereas fluorescent POVPC mainly localized to the plasma membrane irrespective of the carrier. The latter lipid contains an aldehyde group which may undergo Schiff base formation with the free amino groups of proteins and lipids in the cell surface. Functional proteomic analysis led to the identification of the proteins that are covalently bound to fluorescent POVPC. The respective candidates are involved in cell signaling, apoptosis, transport and stress response. Analysis of lipid extracts provided evidence that the labeled oxPL also formed condensation products with aminophospholipids. Both, the labeled proteins and lipids may not only be considered the primary molecular targets, they are also likely to be candidates as primary signaling platforms of oxPLs in macrophages.

SO22

Ceramide 3 is really a longevity assurance gene

M. Rabionet[1], R. Jennemann[1], K. Gorgas[2], H.-J. Grone[1], R. Sandhoff[1]

[1] *Cellular & Molecular Pathology, German Cancer Research Center, D-69120 Heidelberg, Germany*

[2] *Medical Cell Biology, Institute for Anatomy, D-69120 Heidelberg, Germany*

Skin serves a quintessential function as barrier towards our environment. When the epidermal barrier has broken down, like in atopic dermatitis or psoriasis, pathogens can easily enter the skin, leading to secondary fungal (dermatophytosis) and bacterial infections (staphylococcus aureus). At the same time the water permeability barrier (WPB) in the outer layer of the epidermis prevents land dwelling animals from desiccation. Extracellular lipid lamellae between the corneocytes are an essential part of the WPB. These lamellae contain high concentrations of ceramides with very long chain (C30–C36) omega-hydroxylated fatty acid moieties. In vitro data suggest, that only ceramide synthase 3 (CerS3) but not CerS2 is capable to produce ceramides of this type. Furthermore, the co-expression of one (CerS3) out of six CerS and of very long chain sphingolipids in skin and testis suggested the involvement of CerS3 in the biosynthesis of omega hydroxy-ceramides in the epidermis. In this study, we show, that mice with a mutated ceramide synthase 3, lack all sphingolipids with very long chain acyl moieties. As a consequence 90% of the epidermal sphingolipids are gone leading to a disrupted WPB in mutant mice which die shortly after birth.

52nd International Conference on the Bioscience of Lipids
"Expanding the Horizons of Lipidomics"
August 30th - September 3rd, 2011
Warsaw, Poland

Preliminary conference program of the 52nd ICBL

Tuesday, August 30, 2011
15th Laurens van Deenen Lecture
Peter J. Quinn (UK)
Wednesday, August 31, 2011
Session 1: Lipids in molecular medicine
Session 2: Lipids in regulation of gene expression
Thursday, September 1, 2011
Session 3: Lipids in signaling and intracellular trafficking
Session 4: Membrane microdomains, lipid binding proteins and membrane repair
Friday, September 2, 2011
Session 5: Lipid modifications of macromolecules
Saturday, September 3, 2011
Session 6: Isoprenoid lipids
Session 7: Lipid – protein interactions – biophysical and biochemical approaches
Closing Lecture: Michel Lagarde, France

Last update: December 10, 2010

Venue

Warsaw, Poland

The Old Library of the University of Warsaw is located in the Warsaw University Campus. This historical building serves as a conference center after renovation.

The Old Library is located in Krakowskie Przedmiescie and the Royal Route, in the heart of Warsaw City, 10 min walk from the Old Town. Several hotels and restaurants are located near the conference site. The conference venue is easily accessible by the public transport system.

Local Organizers

Ewa Swiezewska
Agnieszka Dobrzyn
Laszlo Vigh
Ivan Hapala
Jan Kopecky
Joanna Bandorowicz-Pikuła
Barbara Tudek
Wirginia Janiszowska
Tadeusz Chojnacki
Jolanta Barańska
Katarzyna Jagiełło-Wilgat
Katarzyna Krol

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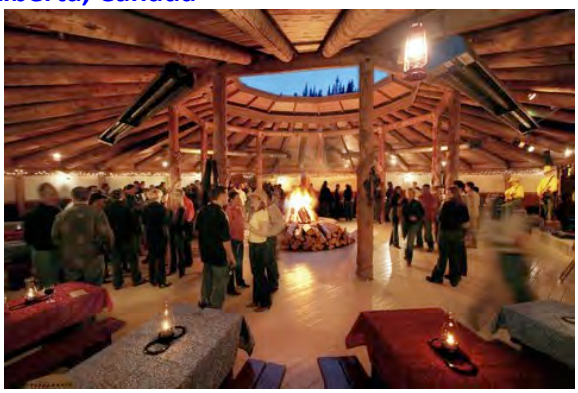
Future Meeting
53rd International Conference on the Bioscience of Lipids
"Frontiers in Lipid Research"
September 4-9, 2012
Banff, Alberta, Canada

NEARBY MOUNTAINS



VENUE FOR SATURDAY BANQUET

GRIZZLY BEAR IN BANFF NATIONAL PARK

Venue: Banff Centre for the Performing Arts http://www.banffcentre.ca/conferences/

Organizing Committee:
Chair: Dennis Vance, dennis.vance@ualberta.ca
Bill Dowhan, William.Dowhan@uth.tmc.edu, René Jacobs, rjacobs@ualberta.ca
Richard Lehner, richard.lehner@ualberta.ca, Spencer Proctor, proctor@afhe.ualberta.ca
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Jean Vance, jean.vance@ualberta.ca, Dawei Zhang, dzhang@ualberta.ca

Preliminary scientific program

Van Deenen Lecturer: Rudi Zechner, University of Graz

- Triacylglycerol metabolism
- Obesity
- Lipid transport
- Lipid support of protein insertion, transport and translocation
- Lipid associated diseases
- Lipid involvement in vesicular transport
- Cholesterol/lipoprotein metabolism
- Phospholipid/sphingolipid metabolism

Maurizio Crestani
Secretary ICBL Steering Committee

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